ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/99 Date Received: 07/01/99

Project: Metro Self Monitor, PO# M62227

Date Samples Extracted: 07/20/99 Date Extracts Analyzed: 07/20/99

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID		Chromit	<u>ım</u>	Copper	<u>Nickel</u>	Zinc
M62227		0.46		0.44	0.49	0.06
Method Blank	ς .	< 0.05		< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 07/22/99 Date Received: 07/01/99

Project: Metro Self Monitor, PO# M62227

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 907005-01 (Duplicate)

				Relativ	7 e	
	Reporting	Sample	Duplica	te Percer	ıt Acceptan	ce
Analyte	Units	Result	Result	t Differer	nce Criteria	a
Chromium	mg/L (ppm)	0.46	0.54	16	0-20	335
Copper	mg/L (ppm)	0.44	0.42	5	0-20	
Nickel	mg/L (ppm)	0.49	0.55	12	0-20	
Zinc	mg/L (ppm)	0.06	0.08	29a	0-20	

Laboratory Code: (Matrix Spike)

	Reporting	Spike	Sample	% Recov	ery	% Recov	ery	Acceptance		
Analyte	Units	Level	Result	MS		MSI)	Criteria	RPI)
Chromium	mg/L (ppm)	5	0.46	84	4.5	88		80-120	5	
Copper	mg/L (ppm)	5	0.44	81		89		80-120	9	
Nickel	mg/L (ppm)	10	0.49	89		86		80-120	3	
Zinc	mg/L (ppm)	5	0.06	86		90		80-120	5	

Laboratory Code: Laboratory Control Sample

Report	ing Spike	% Recovery	% Recover	cy Acceptance		
Analyte Unit	s Level	LCS	LCSD	Criteria	RPD	
Chromium mg/L (p	pm) 5	109	102	80-120	7	
Copper mg/L (p	pm) 5	114	102	80-120	11	
Nickel mg/L (p	pm) 10	106	106	80-120	0	
Zinc mg/L (p	pm) 5	108	102	80-120	6	

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

/ mm 7.1.99 AI,

(206) 285-8282 9p7005

SAMPLE CHAIN OF CUSTODY

1010							
Send Report To:	KAN COOPER	works	•		Good	Thon	1
Address 628	Handred 5	V	·	Contact	Cercere	(non	62×~
City, State, Zip Se	estile us		7				
Phone # (206) 3	82-8379	FAX #	Ze/6 -	387-4309	Dat	e 7-1-29	
SITE NO.		PROJ	ECT NAME	}	PU	RCHASE ORI	DER#
7238		Momo Se	of man	rider	m 6	2227	
SAMPLERS (signature)					PR	OJECT LOCA	TION
Del St					5200	CHA A	re 5,
REMARKS			•		SAMPLE I	DISPOSAL INI	ORMATION
					Disp Retu	oose after 30 o urn Samples for Instruction	days
Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #		Analys Reques	ses
m62227	7/ks 1:20	Hro	//	01	CR		Wi ZN
							-01 CA

							770

SIGNATURE/	P	RINT NAME		COMPANY		Date	Time
Relinquished by	- Gereld	A. Thorp	5 /	Alw		7/100	1:37
Received by J		EL MARI	2 [DEW SBI		2///	
offingaished by:	777700	CL IIII		W-70 A	~ -	7/1/99	1.37
		·				•	
Received by:							
							
					1		

FORMS/COC

06/24/99

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

July 22, 1999

DUPLICATE COPY

INVOICE #99ACU0722-3

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M62227: Results of testing requested by Gerry Thompson for material submitted on July 1, 1999.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ \$80 per sample \$80.00

Amount Due \$80.00

FEDERAL TAX ID (b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

July 22, 1999

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on July 1, 1999 from your Metro Self Monitor, PO# M62227 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Manuel Marti Project Manager

Enclosures ACU0722R.DOC